

Silicon PNP Transistor Epitaxial Type B5000

[Applications]

Medium power amplifier

[Feature]

Low collector saturation voltage $V_{CE(sat)} = -0.35V$ (Max.) at $I_C = -1A$, $I_B = -50mA$

[Absolute Maximum Ratings (Ta=25C)]

Characteristic	Symbol	Maximum Ratings	Unit
Collector-Base Voltage	VCBO	-60	V
Collector-Emitter Voltage	VCEO	-60	V
Emitter-Base Voltage	VEBO	-6	V
Collector Current	IC	-2	A
Junction Temperature	Tj	150	C
Storage Temperature	Tstg	-55 to 150	C

[Electrical Characteristics (Ta=25C)]

Characteristic	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-Emitter Breakdown Voltage	BVCEO	-60	-	-	V	$I_C = -1mA$
Collector-Base Breakdown Voltage	BVCBO	-60	-	-	V	$I_C = -50\mu A$
Emitter-Base Breakdown Voltage	BVEBO	-6	-	-	V	$I_E = -50\mu A$
Collector Cut-off Current	ICBO	-	-	-100	nA	$V_{CB} = -50V$
Emitter Cut-off Current	IEBO	-	-	-100	nA	$V_{EB} = -5V$
DC Current Gain	hFE	120	-	270	-	$V_{CE} = -2V$, $I_C = -500mA$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	-	-	-0.35	V	$I_C = -1A$, $I_B = -50mA$
Transition Frequency	fT	-	200	-	MHz	$V_{CE} = -2V$, $I_E = 500mA$
Collector Output Capacitance	Cob	-	23	-	pF	$V_{CB} = -10V$, $f = 1MHz$, $I_E = 0A$

Notice 1) These are measured data of transistors assembled by PHENITEC SEMICONDUCTOR Corp. and are for reference only.

Notice 2) The contents described herein are subject to change without notice.

Fig.1 $h_{FE} - I_C$
at $V_{CE} = -2V, T_a = 25C$

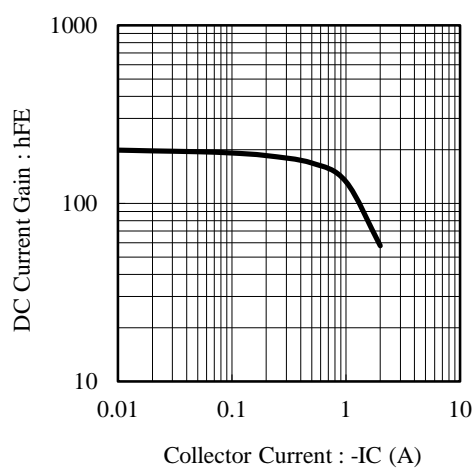


Fig.2 $V_{CE(sat)} - I_C$
at $I_C/I_B = 20, T_a = 25C$

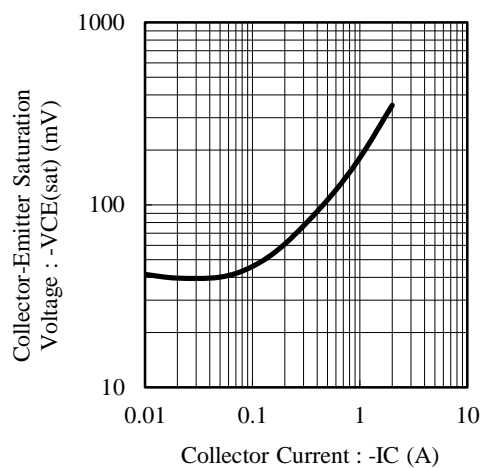


Fig.3 $V_{BE(sat)} - I_C$
at $I_C/I_B = 20, T_a = 25C$

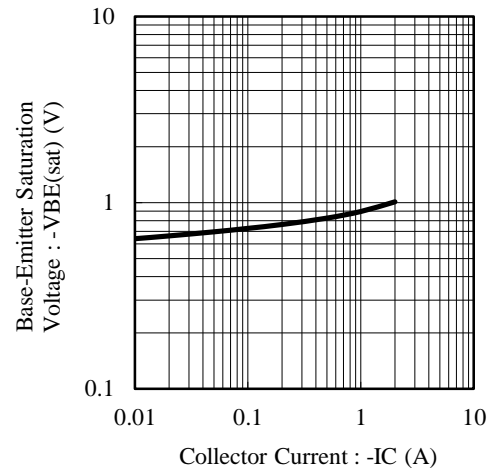


Fig.4 $f_T - I_E$
at $V_{CE} = -2V, T_a = 25C$

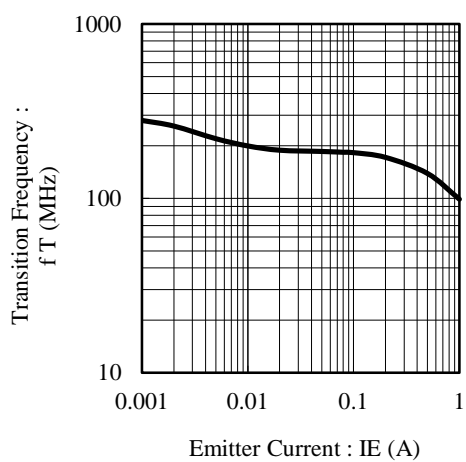


Fig.5 $C_{ob} - V_{CB}$
at $f = 1MHz, T_a = 25C$

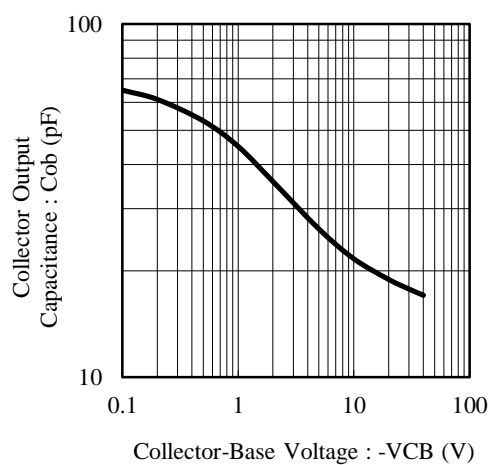


Fig.6 $C_{ib} - V_{EB}$
at $f = 1MHz, T_a = 25C$

